

**Ebey Island Restoration Feasibility Study**  
**Advisory Committee Meeting #2**  
**June 22, 2010**

Submitted to:

**Washington Department of Fish and Wildlife**  
16018 Mill Creek Boulevard  
Mill Creek, WA 98012-1541

Submitted by:

**AMEC Earth & Environmental, Inc.**  
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Bothell, Washington 98011

June 29, 2010

AMEC Project No. 0-915-16971-0

The following notes were recorded at the June 22, 2010, meeting of the Stakeholder Advisory Committee (AdCom) for the Ebey Island Restoration Feasibility Study. A list of meeting attendees and their affiliations is included. The committee met from 3 to 5:30 PM in the conference room at the Washington Department of Fish and Wildlife's (WDFW) offices in Mill Creek, WA. Questions regarding these notes should be directed to Cleve Steward, Consultant Project Manager, Tel. 206.719.1260; cleve.steward@amec.com.

## **Project Goal**

The goal of this project is to evaluate the technical and social feasibility of restoring high quality, tidally-influenced aquatic habitat on 1,237 acres of WDFW-owned land on Ebey Island, and, in consultation with the project Advisory Committee, to select a preferred alternative that would generate the greatest biological and social benefits.

## **Attendees**

### *AMEC Consultant Team:*

Cleve Steward  
 Ryan Bartelheimer  
 Dan Evans (Dan Evans Consulting)  
 Walker Stanovsky  
 Cliff Strong  
 Matt Brennan (Philip Williams Associates, on the phone)

### *WDFW:*

Richard Tveten, Project Director  
 Doug Hennick, Fish and Wildlife Biologist  
 Belinda Schuster, Assistant Wildlife Area Manager  
 Russell Link, Program Manager  
 Ruth Millner, District Wildlife Biologist  
 Kye Iris, Property Acquisitions  
 Annette Hoffman, Region 4 Fish Program Manager

### *Advisory Committee:*

Everett Alexander, Diking District 1 Commissioner  
 Barney Bagwell, Diking District 1 Commissioner  
 Phil Cunningham, Diking District 1 Commissioner  
 Kate Halstead, Sno-Valley Tilth  
 Maria Calvi, Tulalip Tribes  
 Janne Kaje, King County Snoqualmie-Skykomish Watershed  
 Micah Wait, Wild Fish Conservancy  
 Ryan Hembree, Snohomish County Agriculture Coordinator  
 Mike Blackbird, Pilchuck Audubon  
 Bobbi Lindemulder, standing in for Monte Marty, Snohomish Conservation District

Sharon Swan, Snohomish County Parks and Recreation  
 Jason Alexander, Stilly-Snohomish Fisheries Task Force  
 John Engel, Snohomish County Public Works, Surface Water Management  
 Andrew Corbina, WSU Snohomish County Extension

### Meeting Notes:

- I. Richard: Brief welcome
- II. Agenda and recap
  - A. Dan's intro
    1. Agenda
      - a. Brief recap
      - b. Project overview and update: what we're about, progress to date
      - c. Preliminary Conceptual Alternatives (PCAs): Tech background, range of options, how generated
      - d. Criteria used to evaluate PCAs and select preferred alternative
      - e. Discussion, expected outputs, next steps
    2. Recap of AdCom #1
      - a. Richard introduced the feasibility study project and team
      - b. We noted the ag/restoration issue underway in Sno. County and elsewhere
      - c. Purpose:
        - i. Gather info
        - ii. Evaluate technical and social feasibility and alternatives
        - iii. With AdCom input, recommend a preferred alternative
      - d. Ryan presented technical aspects of the project
        - i. Restoration strategies
        - ii. Full tidal, muted tidal, managed areas
      - e. Group discussion highlighting four values:
        - i. Fish restoration: (Janne, Casey, Doug)
          - (a) Intuitively, good fish restoration site
            - (1) Need to evaluate and verify
            - (2) Estuary habitat is a limiting factor, especially for Chinook
            - (3) Deadwater Slough is on mainstem Snohomish River – the main migratory route for juvenile salmon
            - (4) Large area – potential for land-water interface
            - (5) Sweet (fresh) water, not too brackish, preferred by Chinook
          - (b) Many tech challenges and uncertainties we need to address
        - ii. Ag land – Site is designated Ag10
          - (a) Grazing, hay
          - (b) Some row crops
          - (c) Drier land could increase value (with greater pumping and controls)
          - (d) Future? Floating gardens (Kate)
        - iii. Wildlife and birds
          - (a) Overwintering waterfowl
          - (b) Migratory birds
          - (c) Resident birds and wildlife
        - iv. Recreation
          - (a) Bike / hike
          - (b) Birders

- (c) Hunting
      - (d) Kayaking
    - f. Site visit
  - B. Richard: Goals and objectives of the project
    - 1. Restate WDFW mission: dual mandate
      - a. Protect fish and wildlife habitat
      - b. Provide sustainable fish and wildlife related recreation
    - 2. Expectations for the WDFW land on Ebey Island
      - a. Details of request for funding
        - i. Goal is healthy, diverse, sustainable fish and wildlife populations and habitat
        - ii. Long term: Restore estuarine functions
        - iii. Short term: Enhance wetland, moist soil management
      - b. Feasibility study grant from Salmon Recover Funding Board (SRFB)
        - i. Examine possibilities for fish habitat restoration
        - ii. We must consider “not just an empty island” but everything that’s there
    - 3. Expectations of the Advisory Committee (AdCom)
      - a. Project goal restated, as above
      - b. AdCom is expected to ensure that the study considers a full range of options
  - C. Cleve:
    - 1. Acknowledges Dan’s efforts in outreach
    - 2. Goal is to incorporate AdCom’s views
    - 3. Today’s meeting is meant to show them that process
    - 4. Slide 2: Project schedule recap
      - a. Feedback opportunities not limited to meetings
      - b. Dan or others will act as points of contact
      - c. The schedule is used to “set a course” for the project
      - d. AdCom meeting #3 could be pushed back if more time is needed
        - i. We now realize how much “homework” we have to prepare for that meeting
        - ii. However, schedule has to be driven by next round of SRFB funding
  - D. Ryan B: Recap of this meeting’s agenda
- III. Ryan B: Existing information in and around project area
  - A. Slide 5: Existing waterways and flow directions
  - B. Slide 6: General direction of flows during floods is north
  - C. Slide 7: Ebey Slough gage data
    - 1. Gravity flow drainage is possible ~2-5% of the time
    - 2. When tide is low
  - D. Slide 8: Historic aerial photo, noting 3 historic slough channels
  - E. Slide 9: LiDAR data, processed by PWA
    - 1. Vegetated areas show artificially high (as in forested SE corner of island)
    - 2. Color-coding shows elevations relative to tide stages
    - 3. Notes historic channels from previous slide as remnant low areas
  - F. Slide 10: Sample muted tidal heights
    - 1. There’s potential to fine-tune this curve
    - 2. Different combinations of water-control structures can provide desired flexibility
  - G. Slide 11: Area of WDFW land inundated as a function of water elevation
    - 1. Inflection point gives possible target muted tidal height ~6 ft NAVD
    - 2. Recap of difference between full and muted tidal inundation
  - H. Slide 12: Full vs. muted tidal restoration

1. Three- to five-fold difference in fill volume required
2. Micah: Which alternatives does this apply to?
  - a. Ryan B: Actual volumes vary by alternative
  - b. Cleve: These fill volumes are per 1,000 linear feet of dike
3. Kate: Why the difference in dike height for full vs. muted tidal?
  - a. Ryan B: Recap using schematic drawings from AdCom #1
  - b. Difference in width of footprint and geometry and height of dikes
4. Russell: Are there examples of muted tidal systems in the Snohomish estuary?
  - a. Ryan B: Not to his knowledge, but they definitely exist elsewhere
5. Maria: Is there a difference in maintenance requirements / sustainability?
  - a. Ryan B: Assurances are much more difficult w/ full-height dike
    - i. With muted, can retain and modify water control structure in original dike
    - ii. Also lower "cost of entry" with muted
    - iii. Muted system is more flexible by using "nimble" water control structures
  - b. Maria: Maintenance of these "nimble" structures vs. traditional ones?
    - i. Ryan B: They're designed robustly
    - ii. In some ways, easier to maintain than unregulated tide gates
    - iii. Can be opened between tides to remove debris, unlike older designs
6. Cleve: Obvious differences make muted tidal look like a better option
  - a. There are nuances we're not seeing at this level
  - b. We're not endorsing one or the other at this stage
  - c. Some alternatives use both
  - d. This slide is just meant to highlight differences objectively
7. Everett: With muted, if tide gate fails, it will flood the island with no backup
  - a. Ryan B: There are ways to build in backups
  - b. For example, a shutoff valve on the inboard side of the culvert
8. Russell: How many tide gates per length of dike?
  - a. Ryan B: Not many; maybe one to four at most on whole property
  - b. It's premature to discuss now
  - c. Specifics vary depending on the system's goals and other components
- I. Slide 14: Conceptual dike cross-sections and recap of relationship to fill volume
- J. Slide 15: Land use descriptions
  1. Note: Most alternatives don't incorporate land WDFW doesn't already own
  2. A few include minor acquisitions
  3. Conceptual alternatives intentionally cover a wide range of options, from do nothing to full inundation ("bookends")
  4. WDFW has already spoken w/ some owners and right-of-way holders conceptually
  5. No one will be blindsided by suggestions of possible acquisitions
- IV. Ryan B: Presentation of conceptual alternatives
  - A. Slide 16: Draft alternative A
    1. Full tidal
    2. Note inclusion of several small parcels outside present WDFW land
    3. WDFW has talked to owners, including diking district at east edge
    4. Olympic Pipeline wouldn't have their needed maintenance window
  - B. Slide 17: Draft Alternative B
    1. Everett: How much is the difference in dike lengths in these alternatives?
      - a. Ryan B: Hasn't been calculated yet for the draft alternatives
    2. Janne:
      - a. Full tidal (as in alternative A) is described as an extreme option

- b. However, it requires less dike than others - some of the material removed from the existing dike can be reused
  - c. Construction of muted tidal berms would require new material to be brought in
- 3. John: What about roads and infrastructure?
  - a. Ryan B: Very preliminary; placeholders in plan say simply to raise them
- 4. Dan: What is usual use / disposal of material in these situations?
  - a. Ryan B: Tidal range is high enough that you couldn't reuse much
  - b. It would require wet work, which is much harder and more expensive
- 5. Dan: What percentage of dike is usually removed? What about at Nisqually?
  - a. Ryan B: At Nisqually, it was all removed
  - b. Depends on available money and on height of tidal range
- 6. Everett: What are the differences in area of the diking district?
  - a. Funding is by area
  - b. To cut their area in half and add dike is something significant
  - c. Ryan B: Note that some alternatives could include land to the north too
    - i. But this is outside the scope of the SRFB grant
    - ii. Though the diking district has expressed willingness to consider
  - d. Maria:
    - i. Don't assume areas / lengths / volumes on this alternative
    - ii. Also don't assume that diking district funding will be as it has been
    - iii. Dike on WDFW land might include a State obligation to maintain it
    - iv. Richard: Yes, but many of these options are very expensive
- 7. Ryan H: Why looking at some land swaps / acquisitions but not others?
  - a. For example, land at north end of Ebey Island
  - b. Richard: Distinction between contiguous properties and those elsewhere
    - i. Conditions of SRFB grant were to look at feasibility for this property
    - ii. Have to draw a line for how far afield to look
  - c. Micah: Has worked w/ SRFB
    - i. Thinks we could go back and modify grant conditions
    - ii. Could allow consideration of more distant land swaps
  - d. Ryan H: Feels there's inconsistency in what options are evaluated
  - e. John: Concurr with Micah
    - i. Thinks SRFB and the forum would be flexible in considering solutions
    - ii. Encourages team not to be locked into considering only present parcels
- 8. Kate:
  - a. What else does "bookends" mean?
  - b. Why not consider alternatives that improve ag to the detriment of fish?
- 9. Cleve: AMEC's mandate to evaluate the feasibility of different restoration alternatives was in context of existing property boundaries
  - a. Nevertheless, it may be possible to broaden scope to include restoration of north Ebey Island
  - b. Good to talk about this at early stage of the process
  - c. We'll have to look at the effect of including north Ebey Island on the budget and analytical approach we've proposed to evaluate alternatives
  - d. We'll discuss it and get back to you
- 10. Maria: Need to consider total dike length vs. area diked, even off the island
- 11. Ryan B: Note that actual dike configurations wouldn't have the sharp angles depicted in the aerial photographs
  - a. These are just a "first cut" to illustrate the basic restoration concepts

- b. Actual dikes would be set back farther from property edges
- 12. Micah: Question about current conditions
  - a. How often are the dikes overtopped?
  - b. Everett: Last time was 1990
- C. Slides 18-21: Quick presentation of Draft Alternatives C through F
- D. Slide 22: Draft Alternative G
  - 1. John: How would muted tidal in the middle drain connect to full tidal at NE?
  - 2. Ryan B: Need to add water control structure (not presently shown)
  - 3. Located at intersection of full height dike and watercourse
- E. Slides 23-26: Quick presentation of Draft Alternatives H through K
- F. Slide 27: Comparison of alternatives
  - 1. Includes rough sketch of relative areas and lengths
  - 2. Dan: No difference in this chart between full height and shorter dikes?
    - a. Ryan B: No.
    - b. Dan: Will we account for this, and % of dike removed vs. breaches, later?
      - i. Ryan B: Yes, these distinctions will be made in later analysis
      - ii. Also will develop more detail in water control structures
  - 3. Dan: This will all be available electronically after the meeting
- G. Cleve: Everyone will have 3 weeks (until July 13) to submit comments by email, phone, in person
- V. Questions and answers / open discussion
  - A. Kate: A map with overlay of soil types would be helpful in evaluating alternatives
    - 1. Ryan B: It exists, but we don't have it with us
    - 2. Will put it on the project FTP site
  - B. John: Hard to see distinctions in the alternatives within the "working lands" category
    - 1. Ryan:
  - C. Everett: We've heard nothing about destruction of prime ag land
    - 1. Will there be any mitigation for that?
    - 2. He understood that the county would try to maintain area of ag
    - 3. Has this been given any consideration?
    - 4. Ryan H: As far as mitigation, there's an effort to put it into county codes
      - a. Mitigation requirement is not very "iron-fisted" yet
      - b. Individual permit requirements can be and are put into place
      - c. County executive is trying to get a new policy enacted within 6 months
        - i. This study therefore won't account for it
        - ii. But hope to have it in place before this project would apply for permits
      - d. Agencies involved:
        - i. Farm Bureau
        - ii. Ag Advisory Board
        - iii. Tulalip and Stillaguamish Tribes
        - iv. WDFW – Bob [Edward]
  - D. Kate: National Marine Fisheries Service (NMFS) Biological Opinion of 2008 regarding FEMA's Regional Flood Insurance Program
    - 1. Bars development of floodplain habitat – have the potential effects (e.g., "taking" of listed salmon) been considered
    - 2. Will any of the presented options be dead on arrival?
    - 3. Ryan B: That question involves meeting zero-rise flood requirements<sup>1</sup>

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<sup>1</sup> A 'zero-rise' floodway is an area reserved to carry the discharge of a flood without raising the base flood elevation.

- a. Will need to work w/ the County
  - b. Hasn't been evaluated yet
  - c. Will require more detailed modeling by PWA later down the road
- E. Kate's understanding of ideal fish habitat
  - 1. Small side channels with water flowing in and out
  - 2. Overhanging vegetation
  - 3. Why no option representing interweaving of existing channels w/ ag between?
  - 4. Ryan B: Not precluded – there's room for fine-tuning and small-scale enhancements not represented here
- F. Phil Cunningham: Any idea at all what kind of salmon numbers we're talking about?
  - 1. Ryan B: Keep this question on the table as Cliff gets into evaluation criteria
- G. Maria:
  - 1. re. Kate's last comment: larger areas generally have more small channels
  - 2. re. Phil: Current hypothesis is that estuary is limiting factor in this basin
  - 3. Therefore this property is very high priority
- H. Phil: But why spend all this money without knowing how many fish are going to be produced?
  - 1. Doug: In Skagit, they're required to estimate numbers
    - a. Would expect this project to do likewise
    - b. 75% of smolts go down the Snohomish mainstem
    - c. Therefore fish benefit is not based solely on area restored
    - d. Location is also important
    - e. Janne: As basin is restored over years, expect changes in migration
  - 2. Janne: This basin has more science than any other in the state
    - a. Different life cycle steps use different good-quality habitats
    - b. The plan does have basin-wide number goals
    - c. It's hard to break those up into individual projects
    - d. Would like this process to include presentation about basin-specific science
      - i. Would like project team to plan for this
      - ii. Should help explain why numerical goals are hard to break down to project level
- I. Ryan H: Would hope to see balance between fish and ag in alternatives analysis
  - 1. To Cliff: would hope to see RCWs and County policies in criteria in advance
- J. Bobbi: Factors to consider
  - 1. How soon after restoration do we expect benefit?
  - 2. How deep is water?
  - 3. How warm does it get while inside restored area?
  - 4. Ryan B: This is all part of more detailed analysis in next phase.
- VI. Cliff: Presentation of draft criteria, as sent to AdCom last week
  - A. Slides 1-6 present the proposed criteria (PowerPoint file different from that used by Ryan B)
  - B. Size of restored area at mean high water
  - C. Area of habitat at mean low water
  - D. Energetics exchange
    - 1. Janne: re. energetics and tidal prism criteria
      - a. Scoring of this criterion is based on relative values; different from other criteria
      - b. What if *none* of the alternatives is good enough?
  - E. Predicted long-term elevation distribution
    - 1. Micah: Does elevation distribution take into account sedimentation trajectories?



2. Cleve: It should, and to the extent we can predict them, it will
- F. Connectivity to total fish population
  1. Micah: For fish, depth of tidal opening is more important than width
    - a. In contrast to restoration of processes
  2. Maria: Need to consider total fish resources (e.g., food), not just where they can swim
  3. Mike: Does anyone know of studies of the effects of salmon restoration on shorebirds?
    - a. Janne: Don't know
    - b. Micah: We're restoring whole ecosystems, not just fish habitat
      - i. If we get back to conditions under which birds evolved, should be good
      - ii. Ruth: True in theory, but may not play out exactly that way
        - (a) We don't really know how animals have changed and adapted
        - (b) They have responded to our changes in the landscape
    - c. Maria: As in Criterion 9, birds need to be considered
      - i. There are data for various birds and landscape types
  4. Kate: Emphasize that edge habitat along channels is important for fish and birds
    - a. This should be taken into account in the evaluation criteria
    - b. Ruth: Depends on species – edge habitat is detrimental to some
      - i. For example, edge habitat benefits raptors
      - ii. So it could reduce presence of shorebirds they prey on
- G. Complexity and diversity of habitat
- H. Influence by adjacent land uses
  1. Janne: This is a “blunt tool”
    - a. Wouldn't want to penalize neighboring land use if done sustainably
    - b. Not clear how to apply this criterion in a nuanced way
    - c. What does “adjacent” mean?
    - d. This criterion needs to be fleshed out more
  2. Ryan H: Intensive vs. organic agriculture
    - a. Intensive gets a negative rating
    - b. Some intensive farms are very sustainable
    - c. Likewise, an organic farm can be horribly unsustainable
    - d. Need to have some more education to tune this criterion
  3. Maria: Functional adjacencies exist with some developments or even industry
- I. Completeness of restored tidal action
- J. Other species: birds
- K. Quick run through remaining criteria
- L. Final criterion: placeholder for others the AdCom may suggest
- M. Slide 7: Pairwise comparison for ranking and weighting importance of criteria
- N. John: There needs to be more discussion of this whole process, including criteria
  1. Has used pairwise comparison and it's not a panacea
    - a. Can produce results in a narrow range
    - b. This makes it difficult to tease out what's important.
  2. Feels very complicated, need something “a little more concrete”
  3. Would project team be open to having groups develop their own alternatives?
  4. Russell: Or rank the various alternatives?
  5. Ryan H: Doesn't see that this process will maximize as many criteria as possible
- O. Slides 8 and onward: Example application of criteria, using Alternative E
  1. Micah: Note that the end score in the example uses unweighted criteria
- P. Doug: AdCom will have until July 9 to submit alternatives

- Q. Cleve: The process doesn't end there
    - 1. Two main paths the project could follow:
      - a. Set goals, say we're going to design to meet those goals
      - b. Or, look at all options that could conceivably be implemented on the ground
        - i. Even if some are dead on arrival or fall off the table very quickly
        - ii. Pick top candidate(s) and refine
    - 2. With available time and money, how much influence does AdCom have?
      - a. Need to balance hearing all voices and not getting bogged down in details
      - b. Project team is open to feedback and "not absolutely committed to the proposed analytical process and framework"
  - R. Sharon: Any chance of expanding the scope to other properties?
    - 1. Richard: WDFW can be reasonable, but have to find a balance
      - a. But we don't have the money to, say, model the whole watershed
      - b. We need to see what we can do with this land or the land near it
      - c. Need to avoid redoing the work of larger basin or county plans
    - 2. Russell: This work will be useful to others working on the same issues
  - S. Janne: Hoped the criteria would be grouped for evaluation
    - 1. Stakeholders who are experts would give input on those groups
    - 2. A weighting system could then weight the groups, not individual criteria
    - 3. Will want to see details about proposed approach
    - 4. Hopes that project team will be open to feedback
  - T. Kate: Economic value doesn't seem to be present
    - 1. For example, fish value vs. ag value vs. maintenance costs
    - 2. Would like to see dollar values; lots of these criteria are intangibles
    - 3. "We need to assign dollar values because we just won't survive without them"
  - U. John: Analysis should evaluate flood-storage benefit of setting back full-height dikes
- VII. Closing discussion
- A. Dan: Given time and money, would funders be amenable to modifying project scope?
    - 1. To Cleve and Richard: Is it feasible to adjust scope or ask SRFB for approval?
    - 2. Richard: Will clarify how much flexibility the team has under terms of the grant
      - a. Great ideas may come up that aren't fundable by this project
      - b. At least, should make a list of such ideas for use by others or in the future
    - 3. Dan: Timeframe to hear an answer to that question?
      - a. Richard: Depends on ability to meet with their contracting officer this week
        - i. If lucky, answer this week
        - ii. But Richard is out of town next week, so really doesn't know for sure
  - B. Cleve: AdCom doesn't seem displeased with the recommended approach, although there is room for improvement
    - 1. We've heard several good ideas that we'll respond to
    - 2. July 27 seems too soon for next meeting – probably sometime in early to mid-August
    - 3. Goal of next meeting will be to present three detailed restoration alternatives for further evaluation
      - a. One for fish, one for ag, one for recreation; or gradations thereof
      - b. We can modify the process as we go
    - 4. There will be more interaction with AdCom before we finalize our recommendations
  - C. Russell: Would like to see how we end up weighting the criteria
    - 1. Cliff: Understood
  - D. Kate: Understands limits of AMEC's scope

1. Offered to meet / host / facilitate meetings among AdCom members
2. Goal would be to develop materials for AMEC to use
3. Cleve: We would welcome any such effort even if we may not be able to fully participate
  - a. We will accept contributions
4. Kate: Happy to arrange places / times if that would be of value to people
- E. Cleve: Tentatively, next meeting August 10, same place and time if possible
- F. Maria: Not clear on next steps
- G. Cleve: Want to conduct assessment and process feedback in time to recommend 3 alternatives for further evaluation at next meeting
  1. Project team will then "ask whether we got it right"
  2. AdCom will help vet the process for completing the next stage of the analysis, like today
  3. Will incorporate AdCom advice, though not hand them the reins
- H. 3 weeks from meeting for feedback: firm date of July 13 for submission
- I. Kye: Will AMEC be soliciting feedback outside the AdCom?
  1. Cleve: No, but others are welcome to do so.
- J. John: Will next meeting give AdCom a chance to work with selected alternatives?
  1. Cleve: Yes, will follow more of a workshop format
  2. Will send out 3 alternatives, plus results of screening, in advance
- K. John: Graphics showing all utilities would be really helpful
  1. Also, the 11 alternatives, which weren't in pre-meeting email
  2. Ryan: Will upload to FTP
    - a. Also, files are small enough to email
    - b. If that doesn't work, can send hard copy
    - c. Will also re-send FTP link to AdCom, being sure to include Maria (joined late)

#### **Technical Questions / Issues noted by Dan:**

1. Can feasibility study scope be expanded to allow for consideration of land swap? (North Ebey Island)
2. Soil type overlay for preliminary conceptual alternatives (PCAs)?
3. Electronic version of summary PCAs page (volumetric bar graph and linear feet)
4. Ag land mitigation? County policy and regulations
5. FEMA Biological Opinion and Zero-Rise Flood Analysis constraints
6. Salmon benefits analysis for PCAs – the project is in a data rich area – a brief summary of the science behind salmon plan would be desirable
7. "Sweet spot" analysis (ag, economics, fish)

#### **Criteria:**

1. Assumptions tentative => latitude to revise adaptively (for example, juvenile chinook preference for mainstem river over Ebey Slough)
2. Fish benefits => Bird (shorebird) benefits? What types of habitat benefit both? Varies by species => differential analysis
3. Circulate criteria in spreadsheet file to allow for comments in text
4. Revised criteria / evaluation process: submit new alternatives? Groups to focus on outcomes? Transparency encouraged
5. Bundle criteria and weight by group objective: fish, ag, wildlife, recreation, flood control, hydrodynamic analysis
6. Economic value: costs/benefits

7. Possible to expand scope (i.e., land swap) and approach? => Richard discuss w/RCO; Cleve w/project team; and report back to AdCom

**Alternatives:**

1. 11-12 PCAs will be evaluated.
2. Seek AdCom input on dike configurations, etc. Comments are due by July 13
  - a. Offer by Kate: Small group collaboration?
3. Three alternatives will be developed by the project team and presented at the next AdCom meeting (tentatively August 10)

**Action Items:**

- Re-send FTP site login information to AdCom
- Post map with overlay of soil types on FTP site
- Arrange for a presentation of the science behind the basin plan and why it's hard to break down benefits by individual projects
- Send spreadsheet version of evaluation criteria to AdCom
- Consider expanding analysis to include wider geographic scope
- Ask SRFB about modifying terms of grant
- Finalize schedule for AdCom meeting #3, tentatively August 10, same place and time
- Upload map showing all utilities in study area to FTP site
- Upload PCAs (Powerpoint presentation) to FTP site
- As feasible, email supplementary materials to AdCom